CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF PESTICIDE REGULATION
MEDICAL TOXICOLOGY BRANCH

SUMMARY OF TOXICOLOGY DATA

PARA-TERTIARY AMYLPHENOL

Chemical Code # 000900, Tolerance # 50678
SB 950 # 514

Original: August 14, 1996
Revised August 17, 1998

I. DATA GAP STATUS

Chronic toxicity, rat:	Data gap, no study submitted (Subchronic: acceptable dermal study, no adverse effect).
Chronic toxicity, dog:	Data gap, no study submitted
Oncogenicity, rat:	Data gap, no study submitted
Oncogenicity, mouse:	Data gap, no study submitted
Reproduction, rat:	Data gap, no study submitted
Teratology, rat:	No data gap, no adverse effect
Teratology, rabbit:	Data gap, no study submitted
Gene mutation:	No data gap, no adverse effect
Chromosome effects:	No data gap, no adverse effect
DNA damage:	No data gap, no adverse effect
Neurotoxicity:	Not required at this time

Toxicology one-liners are attached.
All record numbers through 162661 were examined.
** indicates an acceptable study.
Bold face indicates a possible adverse effect.
File name: T980817
Original: Kishiyama and Gee, 8/14/96. Revised by Gee, August 17, 1998
Note: Para-tertiary-amyphenol is registered in California as an antimicrobial.

II. TOXICOLOGY ONE-LINERS AND CONCLUSIONS

These pages contain summaries only. Individual worksheets may contain additional effects.

COMBINED, RAT

No study submitted

CHRONIC TOXICITY, RAT

No study submitted

Subchronic-Dermal:

**008 131387: Siglin, J.C. "91-Day Dermal Toxicity Study in Rats with Nipacide PTAP". Springborn Laboratories, Inc., SLS Study No. 3227.6. August 20, 1992. Nipacide PTAP, purity 99.8%, was administered dermally at 0, (50% ethanol), 2.5, 10.0 and 25 mg/kg/day to 10 rats/sex/group 5 days/week over 91 days (13 weeks). Dermal irritation (acanthosis, dermatitis, exudate epidermal surface) occurred on the treated areas of mid and high-dose animals; Dermal NOEL = 2.5 mg/kg/day. There were no other effects considered biologically meaningful. Systemic NOEL _>25 mg/kg/day. ACCEPTABLE. (Kishiyama, 8/4/96; Gee, 8/13/96).

CHRONIC TOXICITY, DOG

No study submitted

ONCOGENICITY, RAT

No study submitted

ONCOGENICITY, MOUSE

No study submitted

REPRODUCTION, RAT

No study submitted

TERATOLOGY, RAT

**009 131390: Siglin, J.C. "Nipacide PTAP (Para-Tertiary Amylphenol): Teratology Study in Rats". Springborn Laboratories, Inc., SLS Study No. 3227.3. April 22, 1991. Nipacide PTAP

[99.8%] was administered via gavage once daily on Days 5 through 16 of gestation at concentrations of 0, 50, 200 or 500 mg/kg/day to 25 mated female Sprague-Dawley rats/group. Maternal NOEL = 50 mg/kg/day (body weight and food consumption were lower, rales, hairloss, soft stools, urine stains and post-dosing salivation were apparent at 200 and 500 mg/kg/day). Developmental NOEL = 200 mg/kg/day (reduced fetal weight, bent ribs at 500 mg/kg/day). ACCEPTABLE. (Kishiyama and Gee, 8/14/96).

009 131388. Supplement to 131390. Data shows correct processing designations for fetuses #16 and #17 of dam #7905. The corrections is reported to have .."no impact on reported summary data or data interpretation." (Springborn Laboratories, Inc. letter 8/8/91, page 7)

009 131389: Siglin, J.C. "Nipacide PTAP (Para-Tertiary Amylphenol): Range-Finding Teratology Study in Rats". Springborn Laboratories, Inc., SLS Study No. 3227.2. April 22, 1991. Nipacide PTAP [99.8%] was administered via a single gavage dose/day on Days 6 through 15 of gestation at concentrations of 0, 50, 150, 300, 400, or 500 mg/kg/day to 6 mated female Sprague-Dawley rats/group. The two highest dose groups had reduced body weight during the first 3 days of dosing. Hairloss, urine stains and salivation were apparent for the 400 and 500 mg/kg/day groups and less noticeable for the 300 mg/kg/day group; NOEL = 150 mg/kg/day. Based on results the author concluded 50, 200 and 500 mg/kg/day were suitable dose levels for the definitive teratology study. No fetal skeletal examination. (Kishiyama, 8/2/96; Gee, 8/13/96). Supplemental.

TERATOLOGY, RABBIT

No study submitted

GENE MUTATION

**007 131385: May, K. "Nipacide PTAP (Para-Tertiary Amylphenol): Assessment of Mutagenic Potential in Histidine Auxotrophs of Salmonella Typhimurium". Life Sciences Research Limited, LSR Report No. 90/NLL032/0109. March 28, 1990. Nipacide PTAP, purity 99.8% at concentrations of 0 (ethanol), 1, 3.2, 10, 31.6, and 100 ug/plate, with and without S-9 Mix was evaluated for mutagenicity potential on Salmonella typhimurium strains TA98, TA100, TA1535 and TA1537. No increase in the number of revertant colonies in test conditions under two trials. ACCEPTABLE (with deficiency). (Kishiyama, 7/17/96; Gee, 7/31/96).

010 131800: Exact duplicate of 007 131385.

**007 131386: Lloyd, J.M. "Nipacide PTAP (Para-Tertiary Amylphenol): Investigation of Mutagenic Activity in the TK+/- Mouse Lymphoma Cell Mutation System". Life Sciences Research Limited, LSR Report No. 90/NLL034/0395. April 9, 1990. Nipacide PTAP, purity 99.8% at concentrations of 0 (DMSO), 5, 10, 20, 30, and 40 ug/ml in the absence of S-9 Mix and at 0 (DMSO)2, 4, 6, 8 and 10 ug/ml in the presence of S-9 Mix was evaluated for mutagenic potential in mouse lymphoma cells (L5178Y). Mutation frequency increased two-fold in the second, but not in the first assay at 40 mg/ml (without S-9 Mix) in the presence of extensive toxicity. Colonies were not differentiated

into large and small sizes to distinguish between mechanisms of genetic effects. ACCEPTABLE. (Kishiyama, 7/16/96; Gee, 7/29/96).

010 131802: Exact duplicate of 007 131386.

CHROMOSOME EFFECTS

** 50678-015 162661 " Mutagenicity test on Nipacide ® PTAP in the L5178Y TK$^{+/-}$ mouse lymphoma forward mutation assay with a confirmatory assay ." (Cifone, M. A., Covance Laboratories, Vienna, VA, Study no. 19447-0-431OECD, July 28, 1998) Nipacide® (97.5%), lot #T72536, was assayed for mutagenicity and clastogenic activity with mouse lymphoma L5178Y TK $^{+/-}$ cells with and without activation with Aroclor 1254-induced rat liver enzymes. There were three trials without activation and two trials with activation. Concentrations without activation ranged from 7.5 to 60 ug/ml; with activation, from 0.313 to 15 ug/ml. Incubation with the PTAP was four hours followed by 2 days for expression. Colonies were sized into small and large sizes. PTAP was cytotoxic at concentrations higher that those used. Methylmethanesulfonate and methylcholanthrene were the positive controls. Although the two high concentrations with activation showed an increase in mutation frequency in the initial trial, this was not confirmed in the repeat trial. The conclusion was that Nipacide® was not mutagenic or clastogenic under the conditions of the assay. ACCEPTABLE. (Gee, 8/17/98)

014 162134 Preliminary results for 162661. No worksheet. (Gee, 8/17/98)

DNA DAMAGE

**007 131384: Edwards, C.N. "Nipacide PTAP (Para-Tertiary Amylphenol): Assessment of Clastogenic Action on Bone Marrow Erythrocytes in the Micronucleus Test". Life Science Research Limited, LSR Report No: 90/NLL033/0533. May 11, 1990. Nipacide PTAP, purity 99.8% administered orally once at concentrations of 0 (Maize oil), 62.5, 250, 1000 or 4000 mg/kg to 15/sex, 5 male, 5/sex, 15 male/5 female, and 15 female CD-1 mice, respectively. Bone marrow cells were evaluated for effect on chromosome structure at 24 (5/sex/group), 48 and 72 (5/sex/controls; 5 male/1000 mg/kg; 5 female/4000 mg/kg]) hour intervals. The frequency of micronucleated polychromatic erythrocytes in the bone marrow of male and female mice did not increase with Nipacide NTAP treatments. Although no analysis of dosing material was performed, the presence of dose-related clinical signs confirmed exposure. ACCEPTABLE. (Kishiyama, 7/18/96; Gee, 7/29/96).

010 131801: Exact duplicate of 007 131384.

NEUROTOXICITY

Not required at this time